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PATENT & TRADEMARK OFFICE

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09/587,249 C-1722

## APPLICANT

SEISHIRO YOSHIOKA ET AL.

## FILING DATE

June 2, 2000

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## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4954744	09/1990	Suzuki, et al.	313	336	
	5285129	02/1994	Takeda, et al.	313	309	
	5256936	10/1993	Itoh, et al.	313	309	RECEIVED
D	5559342	9/96	Tsukamoto et al.	NOV 06 2000	10	
D	5141460	08/1992	Jaskie, et al.	GROUP 13700	309	
D	3611077	10/05/71	Smith	315	94	
D	3631291	12/28/1971	Favreau	313	346	
D	3983443	9/28/1976	Schade	313	346DC	
PC	4093562	6/6/1978	Kishimoto	313	103CM	
PC	4672268	6/9/1987	Duenisch, et al.	313	346R	
115	4663559	5/5/1987	Christensen	313	346R	
115	4721524	1/26/1988	Sheldon, et al.	75	0.5A	9/19/86
115	2887413	5/19/1959	Ekkers, et al.	313	341	
115	4680500	7/14/1987	Buck	313	346R	3/6/1986
115	3766423	10/16/1973	Menelly	313	341	
PC	3581151	5/1971	Boyle, et al.	257	10	
PC	3806372	4/1974	Sommer	257	10	
PC	3814968	6/1974	Nathanson, et al.	257	10	
PC	4303930	12/1981	Van Gorkom, et al.	257	10	
PC	4683399	7/1987	Soclof	257	10	06/1981
PC	3936329	2/3/1976	Kendall, et al.	437	228CR	
PC	4599076	7/8/86	Yokono, et al.	313	355	
PC	3990914	11/9/1976	Weinstein, et al.	437	3	
PC	5327050	7/5/94	Tsukamoto et al.	313	363	
PC	5627111	5/6/97	Tsukamoto et al.	438	20	
	5559342	9/24/96	Tsukamoto et al.	257	10	4/6/95

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## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER & TRADEMARK OFFICE	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
	0299461A2	1/18/89	EPO			English
JP	64-31332A	2/1/89	Japan	H01J	029/48	Abstract
JP	1-283749	11/15/89	Japan	H01J	031/15	Abstract
JP	1-309242	12/13/89	Japan			Abstract
	0536731A1	4/14/93	EPO	H01J	1/30	English
	0523702A1	01/20/93	EPO	H01J	31/12	English
	59-169034	09/22/84	Japan	RECEIVED		
	2060991A	5/7/1981	UK	NOV 06 2000	313	346R
	61-156265	7/4/86	Japan	GROUP 1700		

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	"Thin Film Handbook", Committee 131 of Japanese Society for the Promotion of Art and Science (1983), and English-Language translation.
	"Scanning Tunnelling Microscopic Investigations of Electroformed Planar Metal-insulator-metal Diodes," H. Pagnia, N. Sotnik, and W. Wirth, Int. J. Electronics, Vol 69, No. 1, 25-32 (1990)
	"Energy Distribution of Emitted Electrons from Electroformed MIM Structures: The Carbon Island Model," M. Bischoff, H. Pagnia and J. Trickl, Int. J. Electronics, Vol 73, No 5, pp. 1009-1010 (1992)
	"On the Electron Emission from Evaporated Thin Au Films," M. Bischoff, R. Holzer and H. Pagnia, Physics Letters, Vol. 62A, No. 7 (October 3, 1977), pp. 512-514
	"The Electroforming Process in MIM Diodes," Vol. 85, R. Blessing, H. Pagnia and N. Sotnik, Thin Solid Films, pp. 119-128 (1981)
	"Evidence for the Contribution of an Adsorbate to the Voltage-Controlled Negative Resistance of Gold Island Film Diodes," R. Blessing, H. Pagnia and R. Schmitt, Thin Solid Films, Vol. 78, pp. 397-401 (1981)
	"Water-Influenced Switching in Discontinuous Au Film Diodes," R. Muller and H. Pagnia, Materials Letters, Vol. 2, No. 4A, pp. 283-285 (March 1984))
	"Influence of Organic Molecules on the Current-Voltage Characteristic of Planar MIM Diodes," H. Pagnia, N. Sotnik and H. Strauss, Phy. Stat. Sol., Vol. 90, pp. 771-778 (1985)
	"Influence of Gas Composition on Regeneration in Metal/Insulator/Metal Diodes," M. Borbonis, H. Pagnia and N. Sotnik, Thin Solid Films, Vol. 151, pp. 333-342 (1987)
	"Prospects for Metal/non-Metal Microsystems: Sensors, Sources, and Switches," H. Pagnia, Int. J. Electronics, Vol 73, No. 5, pp. 319-825 (1992)

	"Carbon-nanoslit Model for The Electroforming Process in MIM Structures," M. Bischoff, Int. J. Electronics, Vol 70, No. 3, pp. 491-498 (1991)
	"Metal Influence on Switching MIM Diodes," H. Pagnia et al., phys. stat. sol. (a) 111,387 (1989)
	W.P. Dyke, et al., "Field Emission," Advances in Electronics and Electron Physics, 1956, pp. 90-185
DOPE NOV 02 2000 PATENT & TRADEMARK OFFICE 62	C.A. Spindt, et al. "Physical Properties of Thin-film field emission cathodes with molybdenum cones," J. Appl. Phys., Vol. 47 (1976) pp. 5248-5263
Dupl D D W X Y Z	C.A. Mead, "Operation of Tunnel-Emission Devices," J. Appl. Phys., Vol. 32, (1961) pp. 646-652.
Dupl D D W X Y Z	M.I. Elinson, et al., "The Emission of Hot Electrons and the Field Emission of Electrons from Tin Oxide," Radio Engineering and Electronic Physics, (1965), pp. 1290-1296
D D W X Y Z	G. Dittmer, "Electrical Conduction and Electron Emission of Discontinuous Thin Films," Thin Solid Films, 9, (1972) pp. 317-328
D D W X Y Z	H. Hartwell, et al, "Strong Electron Emission From Patterned Tin-Indium Oxide thin Films," Int'l Electron Devices Meeting (1975) pp. 519-521
D D W X Y Z	M. Araki, "Electroforming and Electron Emission of Carbon Thin Films," J. Vac. Soc. Japan, 26, (1983) pp. 22-29
D D W X Y Z	K. Nakamura, et al., "Interaction of Al layers with polycrystalline Si", Journal of Applied Physics, vol. 46, no. 11, November 1975, pp. 4678-4684
D D W X Y Z	Hayt "Engineering Electromagnetics" 1981 McGraw Hill, Inc. page 509
D D W X Y Z	Elsevier Seguoia S.A., "Thin Film Solids", An International Journal on Their Science and Technology, Vol. 9 (1972) pp. 317-328.
	T. Izumiya et al., "Kokai Butsuri, Vol. 8, No. 4, 39-9 (1973) (Japanese)

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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